

ANALYTICAL REPORT

January 08, 2019

Work Order: 1L81915

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Report To
Vicki Baker City of Sioux City 3100 S Lewis Blvd Sioux City, IA 51102

Work Order Information
Date Received: 12/28/2018 12:50PM Collector: KT/LD Phone: (712) 224-5178 PO Number:

Project : Weekly Permit Testing

Project Number: [none]

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1L81915-01	Raw-Influent Waste (C)			Matrix:Water		Collected: 12/25/18 08:00	
Nitrogen, total	80.9 mg/L	0.400	[CALC]	TKN+NOX	SAA	01/05/19 16:01	
Nitrogen, Nitrate+Nitrite	2.92 mg/L	0.40	1CA0181	EPA 353.2	SAA	01/05/19 16:01	
Phosphorus, total	8.07 mg/L	1.00	1CA0167	EPA 365.4	SAA	01/04/19 14:54	
Nitrogen, Kjeldahl, total	78.0 mg/L	1.25	1CA0167	EPA 351.2	SAA	01/04/19 14:54	
1L81915-02	Effluent After Disinfection (G)			Matrix:Water		Collected: 12/26/18 14:12	
Oil and Grease	26 mg/L	4	1BL1050	EPA 1664A	JDK	12/31/18 13:22	
1L81915-03	Effluent After Disinfection (C)			Matrix:Water		Collected: 12/25/18 08:12	
Nitrogen, Ammonia	0.15 mg/L	0.10	1CA0241	TIMBERLINE	JAR	01/08/19 10:13	
Nitrogen, total	14.2 mg/L	0.400	[CALC]	TKN+NOX	SAA	01/05/19 16:01	
Nitrogen, Nitrate+Nitrite	11.7 mg/L	0.40	1CA0181	EPA 353.2	SAA	01/05/19 16:01	
Phosphorus, total	2.67 mg/L	0.40	1CA0167	EPA 365.4	SAA	01/04/19 14:54	
Nitrogen, Kjeldahl, total	2.51 mg/L	0.50	1CA0167	EPA 351.2	SAA	01/04/19 14:54	

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Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1BL1050 - Wet Chem Preparation										
Blank (1BL1050-BLK1)				Prepared & Analyzed: 12/31/18						
Oil and Grease	ND	4	mg/L							
LCS (1BL1050-BS1)				Prepared & Analyzed: 12/31/18						
Oil and Grease	37	4	mg/L	40.0000		92.2	78-114			
LCS Dup (1BL1050-BSD1)				Prepared & Analyzed: 12/31/18						
Oil and Grease	37	4	mg/L	40.0000		91.8	78-114	0.543	18	
Batch 1CA0167 - Wet Chem Preparation										
Blank (1CA0167-BLK1)				Prepared & Analyzed: 01/04/19						
Phosphorus, total	ND	0.40	mg/L							
Nitrogen, Kjeldahl, total	ND	0.50	"							
LCS (1CA0167-BS1)				Prepared & Analyzed: 01/04/19						
Phosphorus, total	19.6	0.40	mg/L	20.0000		98.1	90-110			
Nitrogen, Kjeldahl, total	18.9	0.50	"	20.0000		94.5	90-110			
Matrix Spike (1CA0167-MS1)				Source: 1L81893-02		Prepared & Analyzed: 01/04/19				
Phosphorus, total	42.1	0.80	mg/L	40.0000	1.85	101	90-110			
Nitrogen, Kjeldahl, total	40.5	1.00	"	40.0000	1.34	97.8	90-110			
Matrix Spike Dup (1CA0167-MSD1)				Source: 1L81893-02		Prepared & Analyzed: 01/04/19				
Phosphorus, total	42.0	0.80	mg/L	40.0000	1.85	100	90-110	0.228	10	
Nitrogen, Kjeldahl, total	41.7	1.00	"	40.0000	1.34	101	90-110	3.02	10	

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Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1CA0181 - Wet Chem Preparation										
Blank (1CA0181-BLK1)				Prepared & Analyzed: 01/05/19						
Nitrogen, Nitrate+Nitrite	ND	0.10	mg/L							
LCS (1CA0181-BS1)				Prepared & Analyzed: 01/05/19						
Nitrogen, Nitrate+Nitrite	5.19	0.10	mg/L	5.00500		104	90-110			
Matrix Spike (1CA0181-MS1)				Source: 1L81864-01		Prepared & Analyzed: 01/05/19				
Nitrogen, Nitrate+Nitrite	24.0	0.40	mg/L	20.0200	3.07	105	90-110			
Matrix Spike Dup (1CA0181-MSD1)				Source: 1L81864-01		Prepared & Analyzed: 01/05/19				
Nitrogen, Nitrate+Nitrite	23.9	0.40	mg/L	20.0200	3.07	104	90-110	0.568	10	
Batch 1CA0241 - Wet Chem Preparation										
Blank (1CA0241-BLK1)				Prepared & Analyzed: 01/08/19						
Nitrogen, Ammonia	ND	0.10	mg/L							
LCS (1CA0241-BS1)				Prepared & Analyzed: 01/08/19						
Nitrogen, Ammonia	5.68	0.10	mg/L	5.55556		102	90-114			
Matrix Spike (1CA0241-MS1)				Source: 1L81893-02		Prepared & Analyzed: 01/08/19				
Nitrogen, Ammonia	5.37	0.10	mg/L	5.55556	ND	96.7	84-115			
Matrix Spike Dup (1CA0241-MSD1)				Source: 1L81893-02		Prepared & Analyzed: 01/08/19				
Nitrogen, Ammonia	5.43	0.10	mg/L	5.55556	ND	97.7	84-115	0.958	20	

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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Certified Analyses included in this Report

Method/Matrix	Analyte	Certifications
<i>EPA 1664A in Water</i>	Oil and Grease	KS-NT,SIA1X
<i>EPA 351.2 in Water</i>	Nitrogen, Kjeldahl, total	SIA1X,KS-NT
<i>EPA 353.2 in Water</i>	Nitrogen, Nitrate+Nitrite	KS-NT,SIA1X
<i>EPA 365.4 in Water</i>	Phosphorus, total	SIA1X,KS-NT
<i>TIMBERLINE in Water</i>	Nitrogen, Ammonia	SIA1X

Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2019
KS-NT	Kansas Department of Health and Environment (NELAP)	E-10287	10/31/2019
MO-KC	Missouri Department of Natural Resources	140	04/30/2019
SIA1X	Iowa Department of Natural Resources	95	02/01/2019

End of Report



Keystone Laboratories, Inc.

Sue Thompson For Dara Hanson
Project Manager I

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CHAIN OF CUSTODY RECORD									
Keystone LABORATORIES, INC. 600 East 17th Street South Newton, IA 50208 641-792-8451			Page 1 of 1 Printed: 12/17/2018 2:23:54PM www.keystonelabs.com			INVOICE TO Arah Montagne City of Sioux City 3100 S Lewis Blvd Sioux City, IA 51102			
REPORT TO Vicki Baker City of Sioux City 3100 S Lewis Blvd Sioux City, IA 51102			LAB USE ONLY Work Order: <u>1L81915</u> Temperature: _____ Turn-Cooler: <u>NO</u>			INVOICE TO Custody Seal Containers Intact COC/Labels Agree Preservation Confirmed Received on Ice			
SITE INFORMATION Sampler: <u>K1/LD</u> Project: Weekly Permit Testing			SPECIAL INSTRUCTIONS None Turn Around Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> RUSH, need by ____/____/____						
Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses		
01-001	Raw-Influent Waste (C)	Water	COMP	12/25/18	0800	1	nitrogen-total fluor-351.2	p-365.4	01
02-001	Effluent After Disinfection (G)	Water	GRAB	12/26/18	1412	1	nitrogen-total fluor-351.2	p-365.4	02
03-001	Effluent After Disinfection (C)	Water	COMP	12/25/18	0812	1	nitrogen-total fluor-351.2	p-365.4	03
							timberline (NM3-2)		

Remarks:
 Please add NH3-N for this Thanks
 one sample this one time - 12/27/18

Relinquished By: Vicki Baker Date/Time: 12/27/18/1100
 Relinquished By: Dennis Kinnear Date/Time: 12/28/18
 Received for Lab By: _____ Date/Time: _____
 Original - Lab Copy Yellow - Sampler Copy

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